

# Operations Working Group Report

## January, 2014

The Operations Working Group (OWG) met on December 17, 2013 and considered the following:

### **OWG Meeting Notes Review –**

The working group reviewed and approved the October 2013 meeting notes with minor changes.

### **Revision Request Review –**

<b>123NOGRR</b> 😊
<b>Revisions to Misoperations Reporting Requirements.</b>
Language Review
<b>OWG Action: OWG IA Review</b> 😊
Discussion: This Nodal Operating Guide Revision Request (NOGRR) clarifies the reporting requirements for misoperations to ERCOT and Texas Reliability Entity (OWG). <b>Consensus to endorse and forward the 10/16/13 OWG Report as amended by the 12/16/13 ERCOT comments and as revised by OWG and the IA for NOGRR123 to ROS. (OWG revisions incorporated the unofficial SPWG comments presented at OWG)</b>
<b>124NOGRR</b> 😊
<b>Additional VRT Requirement for IRRs.</b>
Language Review
<b>OWG Action: OWG tabled</b> 😊
Discussion: This Nodal Operating Guide Revision Request (NOGRR) specifies new high Voltage Ride-Through (VRT) requirements for Intermittent Renewable Resources (IRRs) and prohibits IRRs from tripping for events that are less severe than the defined thresholds and occur for shorter time durations. Walter Reid asked that ERCOT do an outreach to the developers to make them aware of this NOGRR. Fred Huang agreed to send out an e-mail. Walter also stated that this NOGRR may conflict with PRC-024. (ERCOT).

125NOGRR 😊
<b>Minimum Notice for Coordinated Reactive Testing.</b>
Language Review
<b>OWG Action: OWG reviewed IA 😊</b>
Discussion: This Nodal Operating Guide Revision Request (NOGRR) changes the minimum advance notification for a coordinated reactive capability test of a Generation Resource from 48 hours prior, to 1700 the day prior to the day of the test. (ERCOT). <b>Consensus to endorse and forward the 10/16/13 OWG Report as amended by the 12/16/13 Luminant comments and the IA for NOGRR123 to ROS.</b>

### Operations Report –

Reviewed the report; comments/questions were answered by ERCOT personnel.

**Operations Task Force Report** – OTF recommends that an ad hoc committee be formed to review and study the references for voltage operating limits. We feel it is better to involve a larger segment of market participants to have input and make a determination if there are any conflicts as the Protocol and Operating Guide is written. It can be argued that everyone is following the Protocol and Guides based on the interpretation of the individual protocol or guide. It could also be argued that there is a possibility of violations. Once the OTF began to study the possible conflicts it became clear that a larger group of market participants were affected and they need to be in the process of reviewing and making any changes to the Protocols and Guides.

- Some discussion was made on the new ERCOT SOL Methodology and how does it have a role in this. It would also need to be reviewed for conflicts.

See Stan's notes below in [BLUE](#).

#### Applicable Protocols and Guides

Nodal Protocol 6.5.5.2(8): Real-Time data for reliability purposes must be accurate to within three percent. [Recommend that NDSWG look at language and clarify what 3% represents. We felt like this was a reporting criteria and not a voltage criteria. Also it was questioned whether this needed to be in the protocol/](#)

Nodal Operating Guide 2.7.2(b)(i): Entities must coordinate high voltage limits in order to guarantee that the maximum continuous over-voltage of equipment is not exceeded. Transmission Operators (TO) shall notify ERCOT of normal operating voltage limits and post-contingency voltage limits for each bus;  
[Recommend review of Steady State Voltage Control Procedure and incorporate it into the Operating Guides.](#)

Nodal Operating Guide 2.7.4.1(4): Except under Force Majeure conditions or ERCOT-permitted operation of the Generation Resource, if a Generation Resource required to provide VSS fails to

maintain transmission system voltage at the point of interconnection with the TSP within 2% of the voltage profile while operating at less than the maximum reactive capability of the Generation Resource, ERCOT may, at its discretion, report this to the Texas RE. [After discussion we felt like this could be a set point used by ERCOT to make a report on generators that meet the other criteria stated in the language. It isn't clear that generators have a 2% criteria to operate in under normal conditions. It states that generators can be reported for not operating in a 2% bandwidth of the set point while providing VSS.](#)

ERCOT Steady State Voltage Control Procedure: Voltage Limits

- (1) Transmission voltage should not exceed 105% nor fall below 95% of the nominal voltage during normal operation of the system.
- (2) Transmission voltage during emergencies (including contingency events) should not exceed equipment over excitation ratings.
- (4) Transmission voltage post contingency should neither fall below 90% nor exceed 110% of the per-unit voltage. If there is a more conservative limit on the high side than 110% than, the conservative limit shall not be exceeded.

Nodal Protocol 6.5.7.1.10(1): Using the input provided by the State Estimator, ERCOT shall use the NSA processor to perform analysis of all contingencies remaining in the active list. For each contingency, ERCOT shall use the NSA processor to monitor the elements for limit violations. ERCOT shall use the NSA processor to verify Electrical Bus voltage limits to be within a percentage tolerance as outlined in the ERCOT Operating Guides. Contingency security violations for transmission lines and transformers occur if:

- (a) The predicted post-contingency MVA exceeds 100% of the Emergency Rating after adjustments for Real-Time weather conditions applicable to the contingency are incorporated; and" .....

Nodal Protocol 3.15(1): ERCOT in coordination with the Transmission Service Providers (TSPs) shall establish and update, as necessary, the ERCOT System Voltage Profile for all Electrical Buses used for Voltage Support in the ERCOT System and shall post all Voltage Profiles on the Market Information System (MIS) Secure Area. ERCOT may temporarily modify its requirements based on current system conditions. (2) All Generation Resources (including self-serve generating units) that have a gross generating unit rating greater than 20 MVA or those units connected at the same

Point of Interconnection (POI) that have gross generating unit ratings aggregating to greater than

20 MVA, that supply power to the ERCOT Transmission Grid, shall provide Voltage Support Service (VSS). [The task force felt it needed clarification on Voltage Support and Electrical Busses and how does it apply to this protocol.](#)

- o **Consensus to schedule a workshop to study various Protocol/Operating Guide Sections to see impacts and to propose clarifications to System Operating Limits methodologies.**
  - [Brian Barcalow gave a presentation on the 2013 Winter Storm Drill and touched on the upcoming Hurricane Drill.](#)

### **Seminar Task Force Report**

- 2014 Operations Seminar scheduled offering 16 CEH's.

### **Texas RE Update Report**

- Standards that are currently in comment stage: PER-005-02; PRC-002.
- BAL-001 TRE may be seen first quarter of 2014.
- FAC alert – Jan 15th due date.

### **System Operations Report –**

- New East Texas Stability GTL effective 12/18/13.  
NPRR542 becomes effective 1/1/2014 which clarifies of use of Emergency Condition. This will change several of the Emergency Condition Notices.  
New NPRR126 Deletion of the Regulatory Required Incident and Disturbance Reports will be reviewed at next OWG meeting.

### **Other –**

- OWG 2014 calendar reviewed.

Discussion on ROS directive - Voltage support requirement for all Generation Resources greater than 20 MVA. More discussion to be had offline to get a better understanding of the issue.

### **Future Meeting Dates –**

- Wednesday January 27, 2014 – offsite, beginning at 08:30.  
Meeting to occur at: Austin Marriott North, 2600 La Frontera Blvd, Round Rock, Texas, 78681.